REMARKS

Claims 1-5 and 7-9 are pending.

In the present Amendment, claims 1-5 and 7-9 are amended to recite a crosslinkable fluorine rubber composition. Support for the amendment is found, for example, in the first full paragraph on page 13 of the present specification.

Referring to paragraph 6 at page 3 of the Office Action, claims 1-2, 4 and 7-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,974,845 ("Minamino") in view of SU 516126 A ("Lidorenko").

Referring to paragraph 7 at page 4 of the Office Action, claims 1-2, 4 and 6-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,430,103 ("Ohata"), U.S. Patent No. 5,444,116 ("Amin '116") or U.S. Patent No. 5,461,107 ("Amin '107"), each individually in view of Minamino and Lidorenko.

Referring to paragraph 8 at page 4 of the Office Action, claims 3 and 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohata, Amin '116 or Amin '107, each individually in view of Minamino and Lidorenko, and further in view of U.S. Patent No. 6,610,761 ("Matsumoto").

Applicants traverse the rejections, and respectfully request the Examiner to reconsider in view of the amendment to the claims and the following remarks.

The cited references, alone or in combination, do not disclose or render obvious a crosslinkable fluorine rubber composition *for plasma process* comprising a crosslinkable fluorine rubber and a carbon fluoride filler, wherein the carbon fluoride filler is heat treated at 300 to 550°C in advance, as is recited by present claim 1.

In the "note" section of the Advisory Action dated August 8, 2007, the Examiner states:

> [T]he examiner has recognized at least three key points from pages 2-4 (particularly on Applicants' very GOOD summary of page 4 at top section) of Remarks regarding the advantage by using a pre-heated carbon fluoride filler.
>
> First, the Examiner understands that Applicants' pre-heating on carbon fluoride filler may result at least somewhat better property such as improving composition' resistance to plasma treatment. Such an advantage may be very good to improve patentable weight in current 103 rejections.
>
> Second, it will certainly take Examiner more search and reconsideration to be sure that heating the filler "before" the mixing of polymer and carbon fluoride filler is critical for final product performance in this case. In most cases of the art, heating at softing [*sic*] temperature of polymer will not damage or decompose the polymer, while the length of heating time may be more critical. Current Claim 1 does NOT disclose how long is the heating time at such a temperature. In the art, heating temperature may be NOT necessarily to be that high as long as its heating time is long enough.
>
> Third, Applicants have presented several good arguments on page 4 at top section. As discussed earlier, each of four primary references is only silent about pre-heating carbon fluoride filler at the claimed high temperature such as 300 to 550°C. However, it may be a routine and common practice such as the way by Lidorenko to "dry" each component including carbon fluoride filler before mixing into composition.

With regard to the Examiner's first point, Applicants reiterate that a carbon fluoride filler that is heat treated at 300 to 550°C in advance has enhanced plasma resistance (that is, when conventional fillers are used, the material will not have sufficient resistance to all of NF_3 plasma treatment, O_2 plasma treatment, and fluorine plasma treatment), as discussed in the response to the Office Action of March 15, 2007.

In particular, the remarkably enhanced plasma resistance obtained by employing a carbon fluoride filler that is heat treated at 300 to 550°C in advance can be seen by comparing Applicants' working Examples 1 and 2. The weight loss of Example 2 employing a carbon fluoride filler that is heat treated in advance (350°C for 2 hours) is smaller than that of Example

1 employing a fluoride filler that was not heat treated in advance, with respect to each of high density F radical, O_2 plasma and CF_4 plasma treatment. See Table 4 at page 48 of the present specification. Moreover, Applicants' comparative Examples 1, 3 and 4, when compared to Applicants' working Examples, demonstrate the advantage of using a carbon fluoride filler instead of the conventional fillers disclosed by Minamino.

In response to the Examiner's second point, the presently claimed subject matter is characterized by comprising a carbon fluoride filler that is heat treated at 300 to 550°C in advance for the purpose of removing impure gases in the carbon fluoride filler.

On the other hand, nothing within Lidorenko teaches, discloses, or fairly suggests a crosslinkable fluorine rubber composition *for plasma process*, and Lidorenko does not describe or suggest that the heat treatment is conducted at a set temperature range and conducted in order to remove impure gases. Moreover, Lidorenko fails to recognize the problem solved in accordance with the present invention, such that the solution thereof by the present Applicants is unobvious.

Therefore, because Lidorenko concerns an electric battery and has nothing to do with a crosslinkable fluorine rubber composition *for plasma process*, it would not have been obvious to modify the references with the disclosure of Lidorenko (disclosing an electrode made by mixing powdered carbon fluoride with a polymeric binder and an electrically conductive additive, such as acetylenic carbon black, pressing the mixture into a lattice, and then heating to the *softening point* of the polymer) to arrive at the presently recited carbon fluoride filler that is heat treated at the specific temperature range of from 300°C to 550°C in advance. Namely, the subject disclosure of Lidorenko has nothing to do with imparting plasma resistance to a crosslinkable fluorine rubber composition.

In response to the Examiner's third point, the purpose of the preheating according to the present invention is to remove impure gases in the carbon fluoride filler. Therefore, the carbon fluoride filler of the presently claimed crosslinkable fluorine rubber composition *for plasma process* is not heat treated in advance in order to dry the carbon fluoride.

In general, a person of ordinary skill in the art would understand that "drying" means that a solvent is removed, and the method for removing solvent is not limited to heating. For example, it is possible to dry, *without heating*, at a low temperature under a reduced pressure (that is, a person of ordinary skill in the art would not necessarily equate "drying" with heat treatment).

Additionally, the present claims have been amended so as to be directed to a crosslinkable fluorine rubber composition, to further distinguish over the cited prior art, and specifically, the polymeric binder of Lidorenko. There is nothing in the prior art which teaches, suggests or otherwise leads one of ordinary skill in the art to prepare a crosslinkable *fluorine rubber composition for plasma process* comprising a crosslinkable *fluorine rubber* and a carbon fluoride filler, where the carbon fluoride filler is heat treated at 300-550°C in advance.

In view of the above, Applicants submit that it would not have been obvious in view of the cited references and the disclosure of Lidorenko to employ a carbon fluoride filler heat treated at the high temperature of 300 to 550 °C, in advance, for the purpose of increasing plasma resistance.

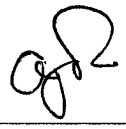
Withdrawal of all rejections and allowance of claims 1-5 and 7-9 is earnestly solicited.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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